

DISTRIBUTION OF INTELLIGENCE MEMORANDUM (40 COPIES PRINTED: 1-37 WITH MAPS
38, 39, 40 WITHOUT MAPS)
SUBJECT: Capabilities of the Vietnamese Communists to Counter a Proposed US Course of Action

IS No. 190146/67 DATED 19 JULY 1967

*CIS 1, 2 McNamara from DGI on 19 July 67
* 3, 4, 5 R. J. Smith for supplying himself, DGI, and IDGI, 19 July 67
* 6 General Carroll, DIA (handed to [REDACTED] by ACD on 20 July STATINTL
* 31, 32, 33 Mr. Proctor/DGI (delivered by [REDACTED] for Proctor on 20 July 67
STATINTL
* 34 Sherman Kent (green sheeted and delivered to him on 20 July 67) with note saying that Mr. R. J. Smith had requested that the memo be forwarded.
* 35 MIO (green sheeted)
* 36-37 [REDACTED] (handed him by [REDACTED] STATINTL
~~Remaining or 40 copies in this drawer of Safe Number 5921.~~
** 26 Fitzgerald/DDP (green sheeted on 21 July 67)
** 27 [REDACTED]/Ch/VNO " 1, 8, 9, 25 destroyed
** 28 SAVA [REDACTED] STATINTL " STATINTL
** 29 ONE [REDACTED] STATINTL " STATINTL
** 30 OGI/[REDACTED] " 25 [REDACTED] Admiral Taylor's Office and 20 Sept 67 new front office.
" Remaining copies in [REDACTED] drawer of Safe Number 5921.
7-10 [REDACTED] 15 DEC 67 STATINTL
11-24 [REDACTED] STATINTL
38-40 destroyed
STATINTL

[REDACTED] Admiral Taylor's Office, called on 20 Sept. to say that Admiral Taylor had been in conversation with General Thomas (Department of Defense) re this Top Secret Memo. Don was ascertaining whether or not General Thomas could have a copy of this memo, and [REDACTED] if affirmative was planning to have Thomas' office call [REDACTED] Chief of OGI's registry, for a copy.

STATINTL

ACD on 20 Sept 67

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19 July 1967

MEMORANDUM FOR: The Honorable Robert S. McNamara
The Secretary of Defense

SUBJECT: Communist Capabilities to Counter
[REDACTED]

25X1A

1. At the request of the Director, DIA, on your behalf, the United States Intelligence Board on 13 July issued SNIE 10-1-67, an estimate of Vietnamese Communist political and military reactions to the establishment of the anti-infiltration system known as [REDACTED]

25X1A

2. The attached memorandum is intended to provide additional background to SNIE 10-1-67. It has been prepared unilaterally by CIA as an aid to any discussion of proposed systems for countering Communist infiltration. Because it analyzes the total problem in considerable depth, I believe it will contribute to your examination of the feasibility of [REDACTED]

25X1A

/s/
Richard Helms
Director

Attachment

"Capabilities of the Vietnamese
Communists to Counter a Proposed
US Course of Action", 19 July 1967,
TS-190146/67

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ODDI: [REDACTED] yd
Cy 1&2 - Addressee

TS No. 190146/67-a
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3 - ER 6-DDI
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DIRECTORATE OF
INTELLIGENCE

Intelligence Memorandum

*Capabilities of the Vietnamese Communists
to Counter a Proposed US Course of Action*

Top Secret

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19 July 1967
TS No. 190146/67

WARNING

This document contains information affecting the national defense of the United States, within the meaning of Title 18, sections 793 and 794, of the US Code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law.

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FOREWORD

25X1A This memorandum analyzes the probable effectiveness of a proposed anti-infiltration system [REDACTED] designed to reduce the infiltration of enemy forces and material from North Vietnam to South Vietnam. The analysis includes a discussion of the physical environment of the Vietnamese Communists' infiltration systems, the vulnerability of these systems to air interdiction, and the counter-measures and alternative means of infiltration that the Communists might use to negate the anti-infiltration system.

The memorandum is intended to provide additional background to the Special National Intelligence Estimate 10-1-67, July 1967, REACTIONS TO A CERTAIN US COURSE OF ACTION.

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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
19 July 1967

INTELLIGENCE MEMORANDUM

Capabilities of the Vietnamese
Communists to Counter a
Proposed US Course of Action

Summary

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A permanent manned barrier south of the eastern part of the DMZ together with an air-emplaced anti-personnel system extending across the rest of South Vietnam and into Laos and an anti-vehicular system in Laos comprise a proposed anti-infiltration system known as [REDACTED] (See map) An intensive analysis of the task assigned the proposed system, the environment in which it must operate, and the demonstrated capabilities of the Vietnamese Communists to mount effective countermeasures, leads to the conclusion that prospects are poor for significantly reducing North Vietnam's capability to support the war in the South by means of this system. Although the proposed system would increase the costs and difficulties of moving personnel and supplies to South Vietnam, the North Vietnamese probably could continue these flows at a rate enabling them to sustain their war effort.

The system is technically elaborate and should provide more rapid and reliable information on infiltration movements. Despite the sophistication of the alerting mechanism, the operational effectiveness of the system in impeding infiltration depends largely on conventional air attack. The experience of almost 30 months of interdiction programs against lines of communication in both Laos and South Vietnam indicates that air attack cannot put a meaningful ceiling on the logistic capabilities of the Vietnamese Communists. The scale of infiltration of men and supplies at any

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given time is so small that only low density, and well-concealed targets, distributed over broad areas, are available for attack. Thus, a significant amount of men and supplies cannot be stopped from infiltrating. In addition, the North Vietnamese can transfer their infiltration routes to areas of Laos not covered by the system. Finally, the Communists can resort increasingly to supplementary infiltration routes or sources of supply--sea infiltration, Cambodia, indigenous resources in South Vietnam--to compensate for any reductions in the present systems through Laos and the DMZ achieved by [REDACTED]

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The Infiltration System

1. The extensive system of roads and trails used by the North Vietnamese to infiltrate personnel and supplies through Laos to South Vietnam is shown in the attached map. The infiltration system consists of two distinct parts--a well developed and diversified road system used for the movement of supplies and a network of trails used for the infiltration of personnel.

2. The routes run through sparsely inhabited territory that is so effectively controlled by the Communists that the only possible major restraint to unimpeded use is air interdiction. The area has attained only a primitive level of economic development so that the use of the major routes in the area for economic purposes or as logistic channels has never placed a strain on the nominal capacities of these routes.

3. For the most part the roads and trails run through areas of heavy jungle canopy offering natural concealment that makes detection from the air difficult. In the more open areas, roads and trails and vehicles and support facilities are frequently camouflaged. The level of activity for both material and personnel infiltration on any specific route is so low that high-density targets are rarely available for air attack.

4. The use of the infiltration systems, particularly for the movement of supplies, is dictated in large part by weather. The highest level of infiltration activity takes place during the dry season--a

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time when conditions are also most favorable for air attack. During the rainy season the problems of transportation and movement are multiplied as are the problems of bombing the infiltration routes. At the same time, high water makes many more streams navigable and large amounts of cloud cover afford additional protection for Communist logistics operations. Because the infiltration system can operate over both land and water routes and because traffic requirements are so small when compared with capacity, the rainy season is less of a problem to the Communists than it is to US and GVN forces.

Personnel System

5. Infiltrating troops not moving directly across the DMZ usually start their trek to South Vietnam from the vicinity of Hill 1001, located just above the northwest corner of the Demilitarized Zone (DMZ). From there they walk, usually in groups of about company size, through the western corner of the DMZ, across the Ben Hai River, and south on trails along the Laotian - South Vietnamese and Cambodian - South Vietnamese borders, crossing into South Vietnam at different points. The infiltration trip requires between 45 days and 3 months and covers a straight-line distance of up to 400 miles from the DMZ to Tay Ninh Province in South Vietnam. The infiltrators move by night in North and South Vietnam, and for the most part by day in Laos and Cambodia where jungle canopy conceals their movement. They generally walk from 7 to 15 miles per day but spend some days resting.

6. The infiltrators do not use a single trail but many routes devised from a complex of a hundred or more trails which are interconnected within the infiltration corridor. Use of a particular route is determined by the season,* Allied activities, and VC logistical and operational requirements. Way stations, reportedly manned by up to 100 men, are set up at intervals of 4 to 15 miles along these

**Trails in valley floors generally are used in dry season but during the rainy season more use is made of trails that follow ridge lines.*

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trails to house communications, liaison, guides, and portering personnel and supplies.

7. During 1966, the North Vietnamese are believed to have infiltrated some 53,000 military personnel--and possibly as many as 28,000 more--into South Vietnam. Two general routes were used; one directly across the DMZ and the other consisting of the complex of trails and roads in the Laotian Panhandle and Cambodia.

8. At least 21,000-24,000 of the personnel whose infiltration has been confirmed came in as members of 12 North Vietnamese infantry regiments. All twelve arrived in South Vietnam during or prior to the summer of 1966. Nine regiments came in via the Laos corridor routes; the other three and elements of a fourth came directly across the DMZ.

9. The infiltration of regimental-size infantry units from North Vietnam over the traditional infiltration routes through Laos is believed to have dropped sharply since the summer of 1966. Recent reporting indicates there may be a new upswing in the rate of infiltration, particularly of battalion-sized units and groups of filler and replacement personnel. The replacement groups known to have infiltrated through Laos usually consisted of between 50 and 150 men. The groups reportedly walk in single file along the trails without flank guards. March order allows for considerable distances between individuals; one typical 60-man group was strung out over a distance of about 300 meters.

10. There is little difference in procedure used when large units infiltrate. One infiltrating regiment dispatched a single battalion in one day with a one-hour interval between companies. The march order of the companies was similar to that for individual replacement groups.

11. Enemy infiltration during 1967 will probably vary from an average of 5,000 to 10,000 troops per month. At this rate an average of 170 to 340 troops a day would have to pass a given point on their way south. If the Communists were forced, for example, to conduct personnel infiltration on a single route, there would be an average of 11 to 22 infiltrators per mile on the route.

12. As a practical matter the troops would move in groups so that the density at any one place on any one trail is much greater. Nevertheless, the existence of several routes keeps the density of use quite low for any given route. In addition it would take the infiltrating groups only one day to pass through the 12-mile-deep antipersonnel section of the anti-infiltration system.

Logistical System

13. The Communists established firm military control over the Panhandle infiltration corridor in 1961 and immediately began improving Route 12 from Mu Gia Pass and constructing Route 23 south to join the existing Route 9 in the Sepone area. Beginning with a relatively few miles of roads, the Communists have improved and increased the length of the network each year to about 700 miles of roads at present. The expanded network includes one route that crosses the border of South Vietnam and another that extends south to the tri-border area and west to the Cambodian border at the Se Kong.

14. The bulk of the military supplies destined for South Vietnam are trucked over this road system in the dry season. The road system is supplemented by portering on trails and by river transportation, particularly on the Se Kong and to a small extent on the Se Bang Hieng. About 40 percent of the road network is located north of Sepone and within the anti-infiltration system. In this area there is an alternate route to nearly every portion of the route and an ever increasing number of bypasses and turnouts in addition. Alignment of the roads was selected in areas affording maximum concealment from the air as well as providing the best conditions for road maintenance.

15. The delivery of supplies over routes from North Vietnam through the anti-infiltration system to the Sepone area does not require the use of a significant portion of the route capacity or a high density of trucks on the routes. Trucks observed on Route 15 moving toward Mu Gia Pass averaged 19 trucks a day from 1 October 1966 through 15 June 1967. This route is estimated to have a dry season capacity of

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about 250 trucks each way per day (EWPDP). Thus the route was used to less than 10 percent of its capacity. If all 19 trucks continued south in Laos on Route 12, which has an estimated capacity of about 116 trucks EWPDP, less than 20 percent of its capacity was used.

16. The major entry routes from North Vietnam into Laos for trucks carrying supplies into the Panhandle are now the Mu Gia Pass primarily and Route 137/912 secondarily. Taking into account all available data and the known improvements in the road system we estimate, after allowing for the requirements of the Communists in Laos, that on a year-round basis over 40 tons a day could have been made available for stockpiling in southern Laos or for delivery to South Vietnam. Over 30 of the 40 tons would have moved from North Vietnam and the other 10 tons would have moved through Laos from Cambodia.

17. The North Vietnamese Army 559th Transportation Group operates this logistical system as well as the personnel infiltration system, but apparently the two systems are separate. It is estimated that 15,000 to 20,000 road maintenance workers are involved in the logistical system and a fleet of 400 to 600 trucks operate in the Panhandle. The trucks operate in a shuttle movement, moving the supplies possibly 50 miles each night and off-loading at each stop. The trucks move mostly at night in small convoys generally of 3-4 vehicles. They drive at slow speeds, usually less than 10 miles per hour, with considerable distance between vehicles.

18. Truck parks, occasionally including underground revetments, are located close together, sometimes only a few miles apart. Unloaded trucks are hidden in these parks during the daytime. Turnouts are built between truck parks to permit trucks to pull off quickly when under attack. A telephone system that exists along most of the road network and radio stations at the major way stations provide communication. These systems are supplemented by sound signals (gunshots) and road walkers.

Vulnerability of the Infiltration Systems

19. The anti-infiltration system proposed to reduce vehicular and personnel movement through Laos consists

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of two major elements, only the first of which is relatively new. The first element includes several types of sensors and surveillance equipment to increase the speed and chances of detecting vehicular and personnel movements; the second consists mainly of the reliance on conventional air attacks to interdict infiltrators.

20. Although the proposed anti-infiltration system would be helpful in determining which roads and trails are being used and the level of infiltration activity, it has two basic shortcomings. First it is subject to enemy technical countermeasures and circumvention. Second, it relies on air attacks to destroy enemy vehicles and personnel. The prospects of achieving significant results from air attacks against the low-density, mobile targets which operate in the infiltration networks are dim.

21. Because of its technical sophistication, the anti-infiltration system has a high potential for reporting, analyzing, and reacting quickly to enemy logistic movements. But the effectiveness of conventional air strikes will be in large measure restricted by the nature of the targets, dense forest cover, at times difficult flying conditions, increased AAA fire, an expanding road and trail network, and the proven adeptness of the North Vietnamese to develop effective countermeasures. Almost 2 1/2 years of experience gained in attempting to interdict Communist supply lines in North Vietnam and Laos indicate that there is scant possibility that conventional air attacks alone can cut off the enemy's logistical pipeline to South Vietnam.

22. In 1965 about 16,000 attack and support sorties were flown by US aircraft against targets in Laos; in 1966 over 76,000 sorties were flown, largely against the lines of communication. From January through May of this year about 44,000 sorties were flown--20 percent of total US sorties in Southeast Asia. The ordnance tonnage dropped on Laos in the first five months of this year was 83 percent of the ordnance dropped on North Vietnam during the same period.

23. Despite the major acceleration of air attacks during 1966 against the enemy's logistical pipeline

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in Laos an estimated 53,000 military personnel--and possibly as many as 28,000 more--infiltrated into South Vietnam. Dispersed troops moving on foot under dense cover are poor targets for attacking aircraft even though their general location is known. The individual North Vietnamese soldier is well aware of the danger of US air attacks from the moment he begins his trek to South Vietnam. Interrogation reports indicate, however, that relatively few casualties occur. The major hardships faced by infiltrating troops remain the long two- to three-month march over rugged terrain, poor food, inadequate medical attention and homesickness.

24. The extension and improvement of the road network in the Laos Panhandle, which has taken place since 1964, has emphasized many short bypasses around heavily interdicted points on the existing road system. Although hundreds of trucks have been destroyed in the Laos Panhandle as the result of US air operations, it is estimated that during the 1965-66 dry season the Communists required only 400-600 trucks for the entire logistics operation in the Panhandle. Air attacks have raised the cost of moving supplies through the Panhandle, but they have failed to limit the total volume of supplies moving to South Vietnam. The over-all capability of the North Vietnamese to move supplies through this area is many times greater today than it was when the air campaigns began.

25. Under optimum conditions the barrier system in Laos would presumably permit concentrated and quick-response air attacks against more lucrative concentrations of targets than has previously been possible. Even then, however, based on the experiences gained in the Rolling Thunder program over North Vietnam, it is extremely unlikely that air attacks alone can successfully stem the flow of necessary supplies to South Vietnam. Air strikes against the transport system of North Vietnam during the past two years--a system more heavily traveled, and more exposed to surveillance--have not significantly affected North Vietnam's transport capability or its ability to move supplies in support of the economy or the war effort. Interdictions have been quickly repaired.

26. Air strikes against the highway system of North Vietnam have had no sustained effects on motor

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truck operations. During May of this year almost 4,400 attack sorties were flown over Route Package 1, mostly on armed reconnaissance missions. During the same month large convoys of trucks--one reported to number about 100--were detected on Route 1A moving toward the DMZ. This demonstrated ability to maintain high levels of traffic in North Vietnam suggests strongly that air attacks will be even less successful in interdicting the much smaller concentrations of trucks and personnel moving along logistical pipelines in the Panhandle of Laos.

27. Because the number of trucks moving supplies through Laos is small, because the density of trucks on the various routes decreases as supplies are off-loaded for use or stockpiling in Laos, and because the network offers alternate routes, the Communists can vary the traffic flow from day to day and even month to month, thus making the traffic pattern unpredictable. For example, the section of Route 12 between Mu Gia Pass and the junction with Route 23 is less than 10 miles long and, at a speed of about 10 miles per hour, each truck can traverse the distance in less than one hour, leaving very little time during which planes can search for the trucks before they move onto various other routes. In addition, trucks can take cover along the route in truck parks or turnouts as already mentioned. Even if trucks were required to move in convoys, which generally do not average more than 3-4 trucks, the target presented would still be small.

Direct Countermeasures

28. The anti-infiltration system would aggravate and compound the difficulties and costs to the North Vietnamese of infiltration. Air strikes against infiltrating targets presumably could be directed with somewhat greater accuracy and with shorter reaction times. Thus both vehicular and human targets should be "at risk" with increased frequency. The manpower inputs to clear roads and trails of sensors and mines, to repair bomb damage, and to support increased air defense activities should also increase. All of these activities would also increase the logistic requirements of Communist forces in Laos.

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29. Despite these added burdens and costs, the Communists would undoubtedly opt in the first instance to mount countermeasures that would preserve the existing infiltration systems. The Communists would be reluctant to abandon their long-established, well-supported, and well-maintained infiltration routes which, in addition to being the shortest and most reliable means of resupply, are also completely under their control.

30. The direct countermeasures the Communists would be most likely to employ would include the following: (1) testing the new system to determine its mode of operation, effectiveness, and geographic extent; (2) improvising ways to cope with the system by such measures as sweeping mines and sensors, increasing the AAA defenses, and spoofing the sensor system with simple or advanced electronic countermeasures; (3) attempting to prevent or impede the installation of the physical barrier along the DMZ, or breaching and/or foiling the system, once it is in operation; (4) developing new roads and trails in Laos or developing alternative logistic flows that bypass the anti-infiltration system.

31. Some of these countermeasures would be intended to complicate the emplacement and operation of sensors. Detection of the movement of very small numbers of personnel or vehicles would be complicated by the confusion of legitimate sensor reactions with normal "background" sensor reactions. Moreover, the Vietnamese could emplace devices of their own to trigger spurious sensor reactions. Infiltration during bad weather, particularly the infiltration of personnel, would reduce the ability of strike aircraft to reach, detect, and destroy their targets even if the sensors indicated their locations.

32. Increased AAA deployment in Laos would make accurate sensor and mine implantation by slow-flying aircraft and helicopters a hazardous and costly task. A concentration of heavy defenses around important infiltration areas could extend the time that the area could be kept free of sensors and mines--even those dropped by advanced-stage, high-speed aircraft. Additionally, the two or three orbiting El-21 aircraft used to monitor

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the anti-infiltration system would be extremely attractive targets for SAMs. Since continuous neutralization of these aircraft would destroy the effectiveness of the anti-infiltration system, the arduous task of emplacing SAM installations in or close to the monitored areas would be well worth the costs to the Communists.

33. Another countermeasure against the anti-infiltration system would be an increase in attacks and harassing incidents against the 20-mile physical barrier located along the DMZ. These actions could increase attrition among the forces manning the barrier or at least require much greater US troop deployments along the barrier. Direct assaults could be mounted from time to time to create at least temporary breaches in the barrier.

34. The North Vietnamese could also counter the impact of the anti-infiltration system by developing new infiltration routes within Laos. It would be possible, for example, for the Communists to outflank the infiltration system through the use of the 70-75 mile-wide area between the western end of the sensor zone and the Lao-Thai border. This countermeasure would involve some risk of widening the ground war in Laos. It would also require the duplication of the fairly elaborate system of support facilities along the existing infiltration routes. Despite these problems we believe that a significant number of troops could be moved through the area without sustained, heavy engagement from the relatively inefficient FAR troops.

35. The Communists would also have a limited potential to infiltrate men and supplies by use of waterways. The Se Bang Hieng is the only river that might be used to counter the anti-infiltration system. The source of this river is in the Laotian-DMZ border area. Local residents along the river occasionally have reported supply movements on the river, but at present the only access to the river from North Vietnam is via the trail network. If the river were to be used to a greater extent than it has been, North Vietnamese road Routes 102 or 103 which lead toward the area probably would be extended so that supplies could be trucked to the river. The capacity of the Se Bang Hiang is estimated to be 50 short tons a day the year around. This amount could be moved from the

DMZ area south on the river to the Sepone area of Route 9. However, enemy use of this river might be made more difficult if sensors were used on the river banks. The river would probably be used more for the movement of supplies than for personnel infiltration.

36. The combination of these countermeasures should enable the North Vietnamese to blunt the effectiveness of the anti-infiltration system enough to maintain at least its present movements of personnel and materiel and probably to increase them. In addition to these countermeasures taken in Laos, the North Vietnamese could resort to increasing use of alternative infiltration routes outside of the Laos Panhandle.

Alternative Means of Infiltration

37. The Communists have four general systems for infiltration of personnel and supplies into South Vietnam. These are the roads and trails through Laos, the trails and waterways through or around the DMZ, the sea routes, and the various routes through or from Cambodia. The use made of each of these systems varies considerably depending on the area of South Vietnam to be supplied, and the types of supplies or personnel being infiltrated.

38. The infiltration of personnel is done almost exclusively on the systems transiting Laos and the DMZ. Infiltration of personnel by sea or through Cambodia is generally confined to key cadre or agents. All four of the systems are used to infiltrate supplies. Most of the ammunition, weapons, and equipment sent from North Vietnam move to South Vietnam through the Laotian Panhandle. A small amount of these items continue to be infiltrated by sea to the delta and coastal areas. The bulk of those needed in northern I Corps are probably infiltrated through and around the DMZ. Small amounts of these items are also purchased in Cambodia. A few weapons and modest quantities of ammunition may also have been procured there. Cambodia, however, is the principal external source for rice. Smaller amounts of food are moved across or around the DMZ.

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39. External sources account for less than one quarter of the daily volume of supplies needed by the Communists in South Vietnam. This daily external requirement includes 36 tons of rice; 9 tons of ammunition and about 6 tons of weapons, quartermaster, signal, and medical supplies.

40. The small volume of supplies which has to move through Laos or the DMZ, the reliance of the proposed anti-infiltration system on air attack as the principal means of interdiction, and the demonstrated competence of the Communists to mount effective countermeasures make it unlikely that the Communists would have to change their supply arrangements drastically. Should they decide to do so, however, they have three alternatives--the Cambodian routes, the sea routes, and the resources available to them within South Vietnam. The potential of each of these is discussed below.

Cambodia

41. If the Cambodian Government were openly to permit the use of its territory to support Communist military activities in South Vietnam, which seems unlikely, the Communists could develop major supply lines to a number of points located along most of the 600-mile Cambodian - South Vietnamese border. The capacity of the roads and inland waterways in Cambodia leading to Communist-held portions of South Vietnam and Laos is substantial and Cambodian sea-ports on the Gulf of Siam are easily capable of handling the additional load. Furthermore, with the active cooperation of the Cambodian Government, ammunition, weapons, and other equipment and supplies, once brought in through Sihanoukville could move over the same routes now used to transport food from Cambodia into the southern part of the Laotian Panhandle and into South Vietnam. This network includes the Se Kong River and Routes 110 and 96 in Laos which are capable of supplying an average of at least 40 tons per day to the South Vietnam/North Vietnam/Laos border area.

42. If the Cambodian Government refused to cooperate in the purchase and transit of items other than food, the Communists would have considerably greater problems. It is doubtful, for example, that clandestine means alone could provide

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the total nonfood supplies of about 15 tons a day needed from external sources by the Communists forces in South Vietnam. This doubt arises principally from the difficulty that this traffic would have in clearing the port of Sihanoukville without detection. If it could be landed at Sihanoukville, or points along the coast, however, the Communists could undoubtedly move significant quantities into South Vietnam. At a minimum, the ability of the Communists to move goods clandestinely through Cambodia would be sufficient to provide an important adjunct to infiltration of supplies by sea, and certainly could be used to supply much of the area in South Vietnam immediately adjacent to Cambodia.

43. Cambodia would be a particularly attractive source for such items of supply as clothing, medical supplies, and communications equipment. These supplies involve small tonnages and are more easily obtained through commercial channels than are weapons and ammunition. The amounts so obtained would be a significant supplement to other procurement routes and methods.

44. The willingness of the Communists to become reliant on Cambodia as a source of all external supplies, particularly weapons and ammunition, is limited. Complete dependence on Cambodia would mean that they were relying on a logistics system which they did not control and whose reliability would always be uncertain. These disadvantages could be critical, particularly in the case of ensuring a reliable and adequate flow of ammunition supplies.

Sea Infiltration

45. The capacity of the sea route in the short term is essentially whatever the Communists want to make it. In the long run, however, this capacity is limited by the number of craft and trained crews available and by the costs the Communists are willing to pay in terms of craft sunk, crews captured or killed, and supplies lost during infiltration attempts. It is estimated that the level of sea infiltration between North and South Vietnam has been drastically reduced since the inception of the US Market Time operation in March 1965, but the Communists obviously have retained

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considerable capability for this function. Seven steel-hulled ships, each with a capacity of about 100 tons, have been detected attempting to infiltrate into South Vietnam since March 1965. The latest known attempt occurred on 15 July 1967 when a ship was grounded by Market Time forces off the coast of Quang Ngai Province. Other intelligence sources persist in reporting that small boats are being used to move supplies to South Vietnam from the north, but these reports are difficult to evaluate and no quantities can be derived from them.

46. We believe that there is sufficient evidence of successful infiltration of materiel by sea in the past and sufficient doubts as to the complete effectiveness of the Market Time operation to estimate that some part of the Communists' nonfood external requirements of 15 tons a day could be infiltrated by sea. If the Communists were willing to accept losses even remotely comparable to those to watercraft in North Vietnam and to motor trucks in North Vietnam and Laos, it appears that some craft could evade detection and meaningful tonnages could be infiltrated by sea to supplement procurement by other means.

More Intensive Exploitation of South Vietnam

47. Communist forces operating in South Vietnam have the ability to satisfy practically all of their logistical support requirements from internal sources, with the significant exception of ammunition and in some areas food. (See Annex I for details of the Communist logistical supply capability in South Vietnam.)

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ANNEX I

Our estimate of the Communist logistical supply capability in South Vietnam for each of the five categories of supplies is summarized in the following paragraphs.

Class I (Food)

Food requirements for Communist military forces are small relative to the amount of food available in South Vietnam and, for the most part, can easily be met from internal sources. Allied operations have disrupted the enemy's food supply network significantly in some areas, but not enough to reduce over-all combat effectiveness seriously. It is believed that newly infiltrated units and other units operating in the immediate DMZ area receive their rice from North Vietnam. If this source were totally denied, units in the DMZ area should be able to obtain sufficient food from a combination of sources in Cambodia and along the coast of South Vietnam.

Class II and IV (Weapons, Quartermaster, Engineering, Medical, etc.)

Communist forces in South Vietnam have sufficient quantities of weapons. The 35 percent of the Communist fighting force not equipped with the new family of weapons is armed with arms manufactured locally, captured on the battlefield, or cached in earlier periods of the war. NVA and VC regular force troops continue to rely on the new family of Chinese Communist weapons because of their superior firepower. The offensive capability of Communist force would be impaired if the flow of these arms into South Vietnam were to be substantially reduced.

The Communists' external requirement for other types of Class II requirements is small. They have no external requirement for chemical supplies, engineering supplies, and transport equipment. Small amounts of quartermaster clothing items are obtained from out of country but the VC have the capability of manufacturing or procuring all quartermaster

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clothing items within South Vietnam. Signal equipment requirements are small, and although NVA forces rely heavily on external support, their over-all dependence on radio signal equipment, like that of the VC, is lessened by the use of audio-visual signals, messengers, and prior planning. An estimated 20 percent of Communist medical supplies are obtained from external sources, much of them from Cambodia. The denial of these supplies to the enemy would compound the already serious problem of medical treatment of sick and wounded. Additional medical supplies could be procured within South Vietnam.

Class III (POL)

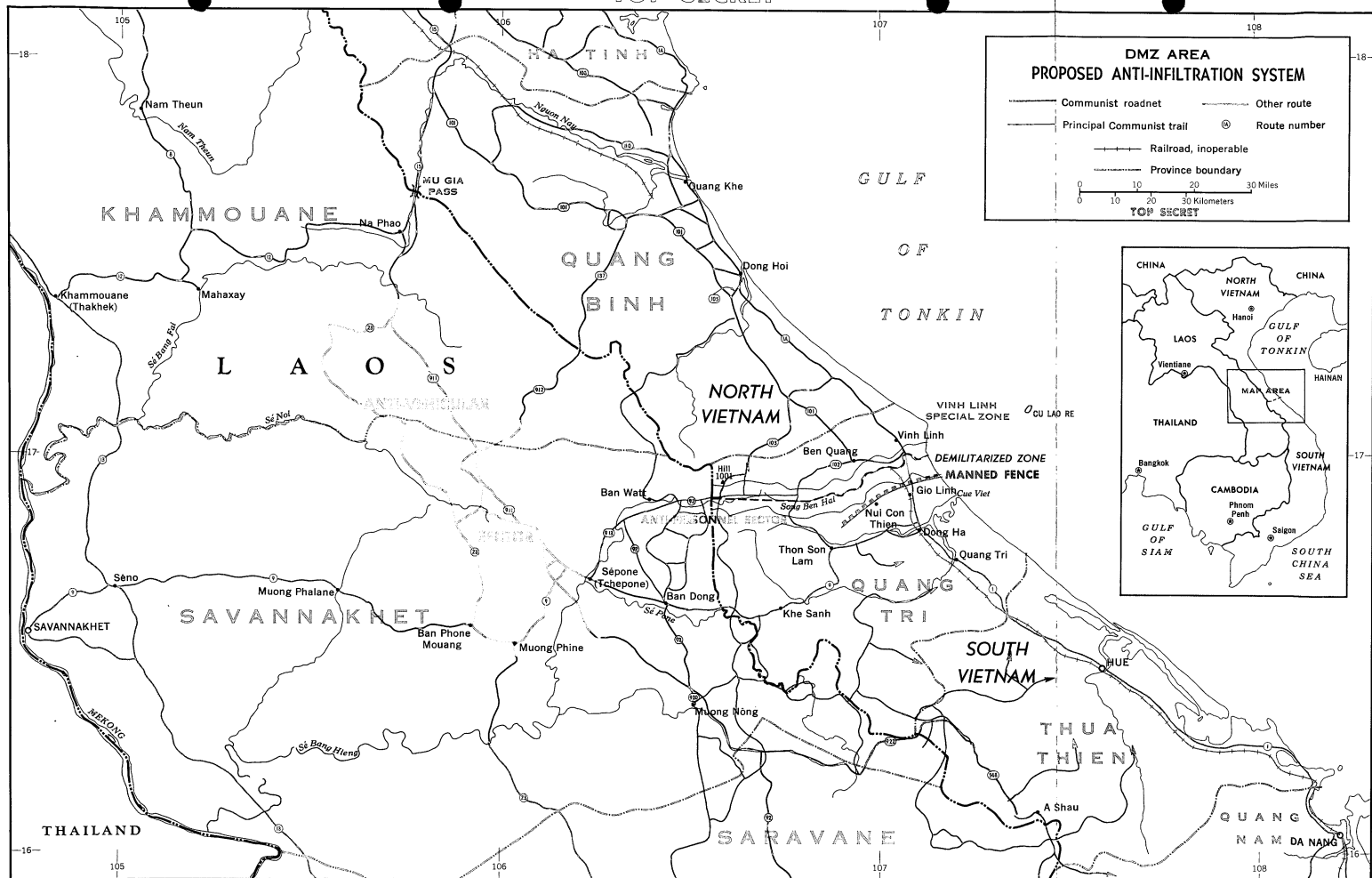
Enemy POL requirements in South Vietnam are negligible and can be satisfied entirely from internal sources.

Class V (Ammunition)

VC/NVA forces currently receive about 85 percent of their ammunition from external sources--most of it through Laos or the DMZ. The denial of this source of supply would greatly impair the firepower and combat capability of Communist forces in South Vietnam. The VC have only a modest capability to produce limited types of ammunition and there is no evidence that they have the capability at present of manufacturing ammunition for the new family of small arms or heavy weapons. The combined output of workshops, coupled with ammunition captured from the battlefield, would probably be sufficient to meet the needs of local force troops and irregulars, but would not be sufficient to maintain Communist regular forces at the current level of combat, assuming the absence of large stockpiles of the new family 7.62-mm. ammunition. Moreover, a halt in the importation of rockets, recoilless rifle and mortar shells would in time eliminate the use of Communist-manufactured heavy weapons. The NVA/VC forces would then become dependent upon captured stocks of heavy weapons and ammunition, and infiltration through Cambodia or by sea. Their plans for the re-equipping of the entire force would also be frustrated.

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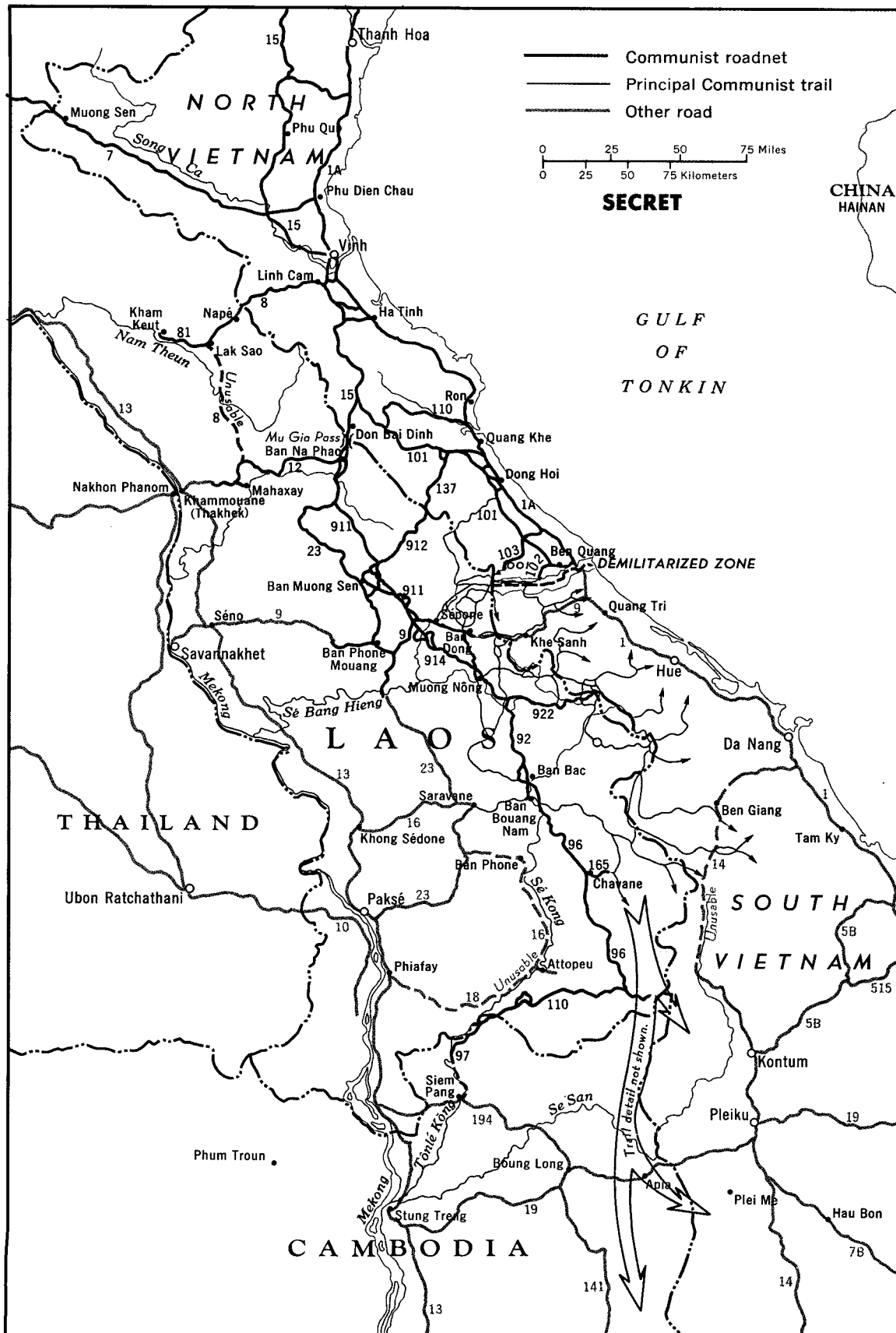
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VIETNAMESE COMMUNIST INFILTRATION SYSTEM



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